SMIRNOVA, A., kand. sel'skokhoz. nauk; SHABANOVA, M., kand. sel'skokhoz. nauk; IONOVA, Z.; FED'KO, I., kand. biolog. nauk; SHEVCHENKO, A., aspirantka; CHMYR', P., mladshiy nauchnyy sotrudnik

From work practices in the use of poisonous chemicals. Zashch. rast. ot vred. i bol. 10 no.3:22-24 '65. (MIRA 19:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zashchity rasteniy (for Smirnova, Shabanova). 2. Nauchno-issledovatel'skiy institut sadovodstva im. I.V. Michurina, Michurinsk (for Ionova). 3. Vsesoyuznyy institut kukuruzy, Dnepropetrovsk (for Fed'ko). 4. Ukrainskiy institut rasteniyevodstva, selektsii i genetiki im. Yur'yeva (for Shevchenko).

FED'KO, I., kand. biolog. nauk

Comb-clawed beetle Omophlus proteus. Zashch. rast. ot vred. i bol. 10 no.10:58-59 '65. (MIRA 18:12)

1. Vsesoyuznyy institut kukuruzy, Dnepropetrovsk.

FED'KO, I.A., Cand Biol Sci -- (diss) "Role of harmful insects in the life of plants of summer ~~seedings~~ swards of perennial grasses in the central steppe of UkSSR." Khar'kov, 1958, 16 pp (Min of Higher Education UkSSR. Khar'kov Order of Labor Red Banner State Univ im A.M. Gor'kiy) 150 copies (KL, 32-58, 107)

FISHKIS, M.H.; KALENSKIY, V.K.; FED'KO, I.V.

New developments in welding thick sheet steel. Avtom.svar. 8 no.5: 74-77 S-O '55. (MLRA 9:1)

1.Institut elektrosvarki imeni Ye.O.Patona AN USSR i Moskovskiy avtozavod imeni I.V.Stalina.
(Sheet steel--Welding)

25(1) SOV/125-59-12-14/18

AUTHOR: Fed'ko, I. V.

TITLE: Electric Slag Welding of 14-mm Thick Sheets

PERIODICAL: Avtomaticheskaya svarka, 1959, Nr 12, p 84 (USSR)

ABSTRACT: In making blast furnace castings and other similar constructions, it is not always possible to place them in a position convenient for automatic welding. For this reason, experiments were conducted to determine the possibility of using electric slag welding for 14-mm thick sheets. The welding was conducted on a "walking" magnetic automatic machine "A-501m", using a "10G2" electrode wire 2.5-mm thick, and "AN-8" flux. The experiments showed that the optimum welding conditions were: speed of electrode feed - 283 m/hour, welding speed - 3 m/hour, welding current - 450 amp, voltage - 38-40 v, electrode diameter - 2.5-mm, gap between the sheets - 18-mm, depth of slag bath - 20-mm, flux - "AN-8."

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S/125/60/000/009/009/017
A161/A130

AUTHORS: Fed'ko, I.V., Lebedev, B.F.

TITLE: Electro-Slag Welding of 14 mm Thick Metal

PERIODICAL: Avtomaticheskaya svarka, 1960, No. 9, pp. 54-57

TEXT: The article describes a new method of welding of blast furnace recuperator casings at Kuznetskiy metallurgicheskiy zavod (Kuznetskiy Metallurgical Plant). The casing was divided into eight assembling sections - the first consisting of the bottom and the first belt; the second to the seventh were cylindrical 9 m in diameter, made from 16 4980 mm high sheets placed vertically; the eighth (top) the dome. The electro-slag welding process was used for joining the separate sections on a special stand (diagram Fig. 2 and photo Fig. 3) with platforms moved around and lifted to the necessary height on guide rails, and a work platform for the auxiliary welder hanging on the outside of the section. The sections were prelimi-

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Electro-Slag Welding of 14 mm Thick Metal

narily joined into two "cards" each at the plant, and the "cards" then brought to the stand at the assembling site and joined as shown. Two electro-slag А-501М welders (A-501m) worked simultaneously on the two butt joints, with 400-450 amp and 34-36 volt current, 283 m/hr electrode wire feed, and 2.2-2.5 m/hr welding speed. Keen attention was necessary in view of the small pool volume (the slag process turns into the arc process when the slag pool depth is not maintained), and spoiled weld portions had to be cut out and newly welded. Normally, one welding device produced two 6 m welds per shift. It was stated that slight inward bulges appeared in cylindrical sections due to insufficient rigidity of 14 mm thick metal, and it is recommended to give the blocks a slight bulge to the outside, i.e. barrel shape, with maximum 8-10 mm deflection at the mid of a joint. This bulge disappears after welding. The horizontal joints between electro-slag welded sections were made by manual welding. А БК-406 (BK-406) tower crane lifted the casing sections (Fig. 4). The casing project was prepared by the Dnepropetrovsk branch of GPI "Proektstal'konstruktskiya" Institute jointly with Electric Welding Institute and "Stal'montazh-3" Trust.

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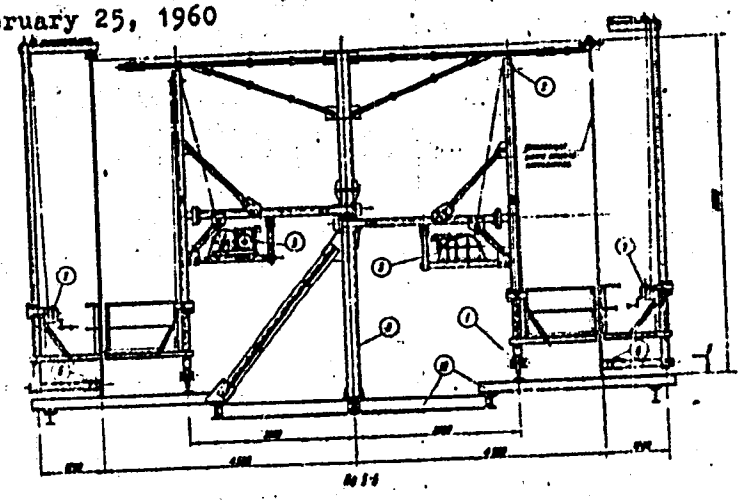
S/125/60/000/009/009/017
A161/A130

Electro-Slag Welding of 14 mm Thick Metal

ASSOCIATION: Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki im. Ye.O. Patona AN USSR (Electric Welding Institute "Order of the Red Banner of Labor" of the Academy of Sciences of the UkrSSR)

SUBMITTED: February 25, 1960

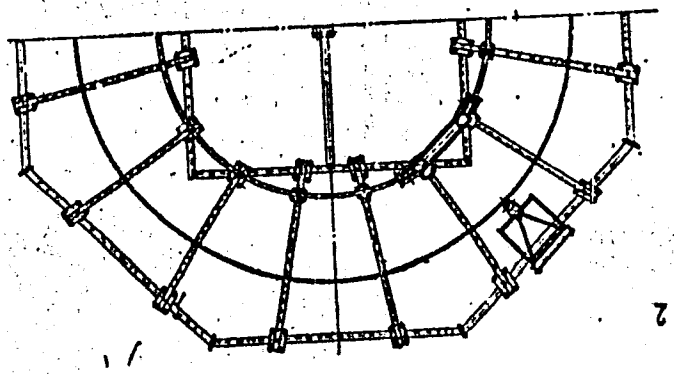


Card 3/5

S/125/60/000/009/009/017
A161/A130

Electro-Slag Welding of 14 mm Thick Metal

Fig. 2



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S/125/60/000/009/009/017
A161/A130

Electro-Welding of 14 mm Thick Metal

Fig. 3

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26485
S/125/61/000/009/010/014
D040/D113

12310 1573, 2808, 2208

AUTHORS: Dudko, D.A., Rublevskiy, I.N., Fed'ko, I.V., and Lebedev, B.F.

TITLE: New arrangement for electro-slag welding with a consumable nozzle

PERIODICAL: Avtomaticheskaya svarka, no. 9, 1961, 60-64

TEXT: An arrangement is suggested, consisting of a new kind of "melting nozzle" (filler metal plate), and a simple lifting system for the shoes. The new "nozzle" (Fig.1) is insulated over its entire surface to prevent contact with the metal being joined, and is provided with ducts inside that are filled with a measured quantity of flux for refilling the diminishing slag bath in the process. The shoe-lifting system (Fig.2) includes a spring (3) pressing the right and left shoe (1) to the gap walls, and two thin steel plates (4) insulated with common enamel. The "nozzle" (5) moves between these plates and resilient fixing pins (6). The shoes "walk" upward when the operator rocks one of the two handles (7) as indicated by the "p" arrows. The arrangement eliminates the conventional fixing inserts in the

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New arrangement for electro-slag welding ....

gaps that obstruct the way for slag refills in the process and cause difficulties. The operator has only to rock a handle periodically in the process after the slag bath is formed. It has been tested in practical use in welding joints in 20-50 mm thick blast furnace shell sections at the construction site. A photograph shows it in operation. Details of the welding process are included. The "nozzle" and the shoe-lifting system need not be used together only. They may be combined separately with any other electro-slag process sets. The arrangement makes electro-slag welding possible in spots that would be inaccessible otherwise. Joining thick-wall tubes on site (where tubes cannot be rotated) is another possible application. Wire can be used instead of the "melting nozzle", and rocking of the wire prevented simply by placing the wire guide outside the shoes. There are 6 figures.

ASSOCIATION: Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki im. Ye.O.Patona AN USSR (Electric Welding Institute "Order of the Red Banner of Labor" im. Ye.O.Paton, AN UkrSSR)

SUBMITTED: May 12, 1961

LEBEDEV, B.F.; FED'KO, I.V.; AVRAMENKO, V.I.; RABINOVICH, S.Yu.

Mechanization of welding operations in building blast furnaces in the Ukraine. Avtom. svar. 14 no.2:77-85 F '61. (MIRA 14:1)

1. Institut elektrosvarki imeni Ye.O. Patona AN USSR (for Lebedev, Fed'ko, Avramenko). 2. Trest "Dneprostal'konstruktsiya" (for Rabinovich).

(Ukraine—Electric welding)
(Blast furnaces—Design and construction)

DUDKO, D.A.; RUBLEVSKIY, I.N.; FED'KO, I.V.; LEBEDEV, B.F.

New method of electric slag welding with consummable electrodes. Avtom.svar. 14 no.9:60-64 S '61. (MIRA 14:8)

1. Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki imeni Ye.O.Patona AN USSR.
(Electric welding)

GAYEVOY, T.V.; KUZIN, A.I.; ASNIS, A.Ye.; FED'KO, I.V.

Use of electric slag welding for the repair of locomotive plate frames. Avtom. svar. 14 no.11:42-46 N '61. (MIRA 14:10)

1. Poltavskiy parovozoremontnyy zavod (for Gayevoy, Kuzin).
2. Ordena Trudovogo Krasnogo Znameni institut elektrosvarki imeni Ye.O. Patona AN USSR.
(Locomotives—Maintenance and repair)
(Electric welding)

L 3382-66 EWT(d)/EWT(m)/EWP(c)/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(l)/EWA(h)/EWA(c)/ETC(m) JD/WW/HM

ACCESSION NR: AP5023084 UR/0125/65/000/009/0047/0051

621.791.76:66.041.498(438)

AUTHOR: Kadushkevich, Ye. (Engineer); Tyushnyakov, I. F. (Engineer); Lebedev, B. F. (Candidate of technical sciences); Fed'ko, I. V. (Engineer)

TITLE: Welding of converter shells in the Polish Peoples Republic

SOURCE: Avtomaticheskaya svarka, no. 9, 1965, 47-51

TOPIC TAGS: automatic welding, welding flux, welding electrode

ABSTRACT: The article describes a welding job done by Polish workers with the aid of a brigade of Soviet specialists in assembling the shells, which had a thickness of 50 mm, special attention was paid to maintaining their diameters with an accuracy of 15 mm and to joining the two halves of each shell in the same plane with an accuracy of ±3 mm. Electric slag welding was done with A-433P and A-820 machines using 3 mm diameter Sv-10G2 welding rod and An-8 flux. To avoid a possible sharp increase in the width of the seam and fusing of the outlet housing due to decreased heat removal, the electrode voltage was decreased to 2-4 volts. Welding of metal with a thickness of 100 mm was started only after preheating of the under side of the joint to 300 C to guarantee good fusing of the

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ACCESSION NR: AP5023084

bead at the start of the joint. Transverse residual deformations were found to be especially great at the end sections of the joint. The annular joining of the converter body was done by hand arc welding, with E42A electrodes brand UONI-13/45. The following conclusions were drawn from the work: 1) the magnitude of the end deformations is a direct function of the size of the gap and of the amount of fused metal; and 2) the sequence in which the joints are welded was found to have little effect on welding deformations. Orig. art. has: 5 figures and 1 table

ASSOCIATION: Yuzhno-Ural'skiy mashinostroitel'nyy zavod (South Ural Machine Fabrication Plant);Institut elektrosvarki im. Ye. O. Patona AN UkrSSR (Electrowelding Institute AN UkrSSR);Khuta im. V. I. Lenina, PNR (Khuta, Polish Peoples Republic)

SUBMITTED: 23Jan65 ENCL: 00 SUB CODE: MM

NR REF SOV: 000 OTHER: 000

Card 2/2

NIKOLAYEV, A.F., kand. tekhn. nauk; FEDIN, I.V., inzh.; PANOV, V.I. inzh.; POL', L.R., inzh.

DFM-GPI-1 and DFM-GPI-2 machines for frozen ground. Stroi i dor. mash. 8 no.12:5-6 D'63 (MIRA 17:7)

SHULYUMOVA, Ye.S., professor; KUZ'MIN, A.F., assistent; FED'KO, P.A., ordinator.

Influence of tissue extracts on lactation in cows in foot-and-mouth disease. Veterinariia 33 no.2:27-30 F '56. (MLRA 9:5)

1. Odesskiy sel'skokhozyaystvennyy institut.
(FOOT-AND-MOUTH DISEASE) (TISSUE EXTRACTS) (LACTATION)

FED'KO, S. I., Chief.
Veterinary Admin., Ministry of Sovkhozes, USSR
"The tasks of veterinary workers of the sovkhozes in successful execution of the wintering 1950 - 1951"
SO: Veterinariya 27(12), 1950, p. 1

FED'KO, S. I.

"The Most Important Task of the Sovkhoz Veterinary Workers"

SOURCE: Veterinariya, Vol 29, No 6, pp 3-7, June 1952; Trans # 60

FED'KO, S.I.

Veterinary work in state farms should be directed to the fulfillment of the fifth five-year plan. Veterinariia 30 no.2:10-14 F '53. (MLRA 6:2)

1. Nachal'nik veterinarnogo upravleniya Ministerstva sovkhozov SSSR.

FED'KO, S.I.

Popularize veterinary science in the press more actively. Veterinariia 41 no.12:8-10 D '64. (MIRA 18:9)

FED'KO, V.P.

Loading mine supports in containers. Les. prom. 35 no.2:11 F '57. (MLRA 10:4)

1. Glavnyy mekhanik Tomskogo lesoperevalochnogo kombinata.
(Loading and unloading) (Mine timbering)

KHAN, G.A.; FED'KOVSKIY, I.A.; SMIRNOV, V.V.

Oxidizability of molybdenite during flotation. Izv. vys. ucheb. zav.; tsvet. met. 5 no.4:54-59 '62. (MIRA 16:5)

1. Moskovskiy institut stali, kafedra obogashcheniya rud redkikh i radioaktivnykh metallov.
(Flotation) (Molybdenite)

KHAN, G.A.; SHPINEVA, A.G.; FED'KOVSKIY, I.A.

Studying the adsorption of xanthate by molybdenite and other sulfides. Izv. vys. ucheb. zav.; tsvet. met. 5 no.6:29-34 '62. (MIRA 16:6)

1. Moskovskiy institut stali i splavov, kafedra obogashcheniya poleznykh iskopayemykh.
(Sulfides—Metallurgy) (Flotation)

YEVGEN'YEV, I.Ye.; FEDNER, A.S.

Designing roadbeds on peats using vertical drains. Avt. dor. 23 no.10:24-26 O '60. (MIRA 13:10)
(Roads--Design) (Road drainage)

KALECHITS, Yevgeniy Vital'yevich; BOCHIN, V.A., red.; FEDNER, A.S., red.; DONSKAYA, G.D., tekhn.red.

[Basic economic aspects of earthwork operations during continuous construction of roads] Osnovy ekonomiki proizvodstva zemlianykh rabot pri potochnom stroitel'stve dorog. Pod red. V.A.Bochina. Moskva, Nauchno-tekhn.izd-vo M-va avtomobil'nogo transp. i shossei-nykh dorog RSFSR, 1961. 191 p. (MIRA 14:7)
(Earthwork) (Road construction)

FEDNER, A.S.; POSTNIKOVA, K.A.

Observing the setting of peat foundation on sand drainage. Avt.dor. 27 no.11:14-15 N '64. (MIRA 18:4)

SHESTOPEROV, S.V., prof., doktor tekhn. nauk; [illegible], L.A., inzh.

Reviewing technical specifications of the state standard for asphalt concrete. Sbor. trud. Khab. avt-dor. inst. no.2:29-34 '62. (MIRA 18:4)

1. Moskovskiy avtomobil'no-dorozhnyy institut.

FEDNEVA, YE. M.

USSR/ Chemistry - Hydrolysis

Card 1/1 Pub. 22 - 26/51

Authors : Mikheyeva, V. I., and Fedneva, E. M.

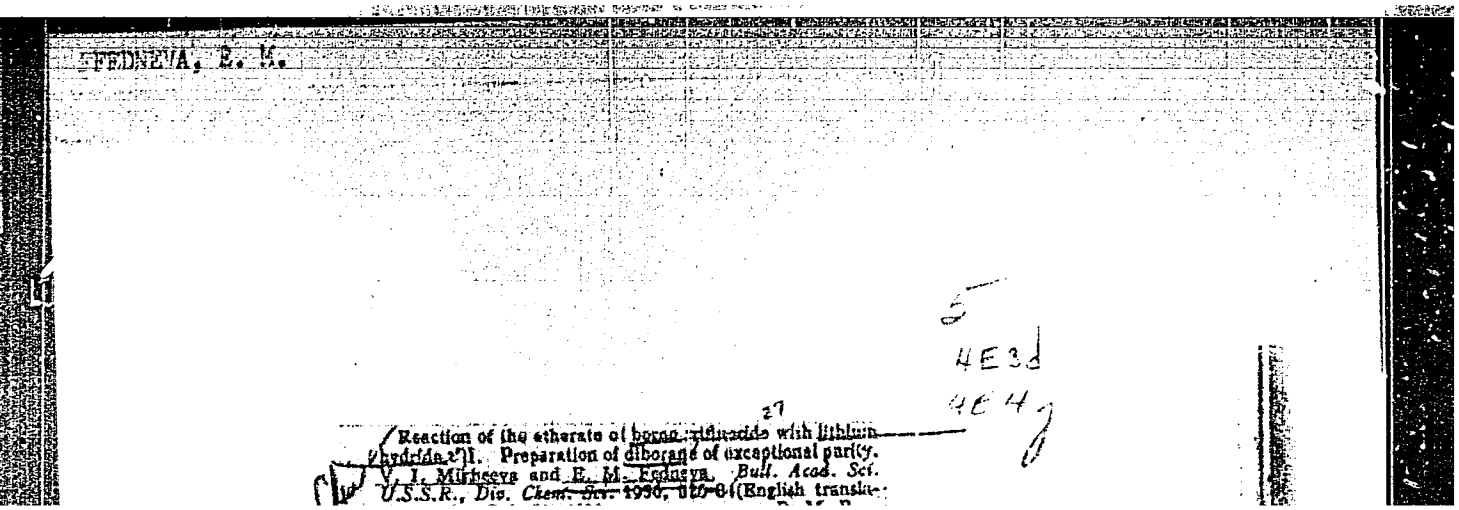
Title : Hydrolysis of lithium borohydride

Periodical : Dok. AN SSSR 101/1, 99-101, Mar 1, 1955

Abstract : The multistage nature of $LiBH_4$ hydrolysis is described. Experiments showed that the hydrolysis in water at 20° is followed by the separation of one of the four hydrogen atoms of $LiBH_4$ and the formation of a $LiBH_5$-OH compound which was found stable at the given reaction conditions. When heated to 100° the compound undergoes the stage of decomposition followed by the displacement of the second hydrogen atom by the hydroxyl group and formation of a product ($LiBH_2(OH)_2$), (product of the second hydrolysis phase). An acidified $NiCl_2$ solution results in complete hydrolysis of the lithium borohydride and the formation of lithium borate where all four hydrogen atoms are replaced by the hydroxyl group. Six references: 5 USA and 1 USSR (1940-1953). Tables.

Institution : Acad. of sc., USSR, The N. S. Kurnakov Institute of Gen. and Inorg. Chem.

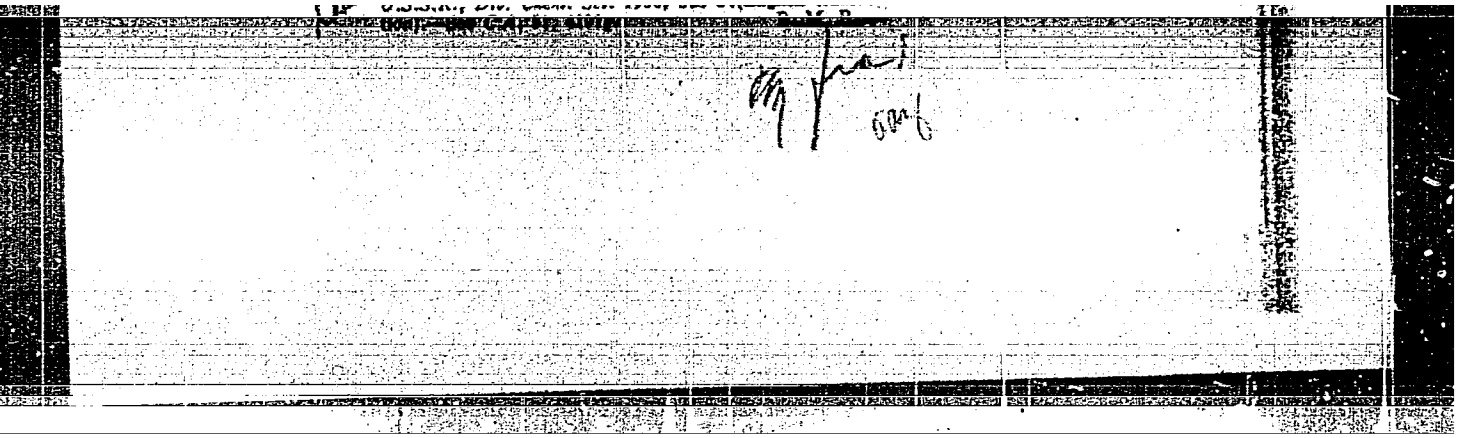
Presented by : Academician I. I. Chernyaev, September 11, 1954



FEDNEVA, E. M.

5
4E3d
4E4

Reaction of the etherate of boron trifluoride with lithium hydride. II. Preparation of diborane of exceptional purity. V. I. Mikheeva and E. M. Fedneva. *Bull. Acad. Sci. U.S.S.R., Div. Chem. Sci.* 1956, 675-81 (English transla-



APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000412610006-1"

Fedneva, Ye. M

USSR/Inorganic Chemistry. Complex Compounds. C

Abs Jour : Ref Zhur - Khimiya, No. 8, 1957, 26465.

Author : Mikheyeva, V.I., Fedneva, Ye.M.

Inst :

Title : Complex Compounds of Boron Hydrides with Nitrogen Containing Organic Bases.

Orig Pub : Zh. neorgan. khimii, 1956, 1, No. 5, 895 - 902.

Abstract : $C_5H_5N.BH_3$ (I) and $C_9H_7N.BH_3$ (II) are forming, when a flow of B_2H_6 is let through a layer of C_5H_5N or C_9H_7N cooled with iced water and in the atmosphere of dry N_2. After the removal of the excessive C_5H_5N, I is obtained as a smelling liquid soluble in nitrobenzene and acetone. I is less soluble in benzene and badly soluble in ether. I melts at 9 to 10°, and dissociates violently when heated to 155°

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to 160° giving off H_2 and producing orange colored plates, which become resinous when heated further. Left in air, I is converted into a white flaky precipitate without any noticeable liberation of gas. If left with a little amount of LiH, I is converted into a polymer with a possible intramolecular reduction of the pyridine ring. The authors refer the decomposition of the polymer by acid with liberation of H_2 to the presence in its molecule of B-B bonds formed at the polymerization. C_5H_5N is liberated as a result of a metathesis reaction at the action of BF_3 or $AlCl_3$ etherates on I. In the result of interaction of I or II with CH_3OH, H_2 together with boromethyl esther and the corresponding

heterocycle are formed. I complex is in the state of monomer molecules in benzene and nitrobenzene solutions of low concentration. The association degree rises rapidly in polar solvents and slowly in non-polar solvents together with the concentration of I. II is snow-white acicular crystals; their melting point is 95 to 96° and they decompose violently at 118°. If left in air, II becomes yellow and, after that, red, and it is decomposed by water similarly to I. II is soluble in acetone and insoluble in ether.

FEDOREVA, E. M.

Study of the reaction of aluminum chloride with lithium [illegible] hydride

This is the first article [illegible] reaction of $AlCl_3$ with LiH [illegible]

stable product [illegible] The reaction [illegible] ditions were defined for obtaining $LiAlH_4$ [illegible] The mechanism of the reaction was discussed, and the meta-stable character of the complex AlH_3 and $AlH_3.AlCl_3$ was indicated.

J. Koctar [illegible]

FEDNEVA, YE.M.

USSR/Inorganic Chemistry. Complex Compounds.

Abs Jour : Referat. Zhurnal Khimiya, No 6, 1957, 18819

Author : V.I. Mikheyeva, Ye.M. Fedneva.
Inst : Academy of Sciences of USSR
Title : Study of Reaction of Ethylate of Boron Trifluoride with Lithium Hydride. Report 1. Preparation of Diborane of Individual Purity

Orig Pub : Izv. AN SSSR, Otd. khim. n., 1956, No 8, 902-912

Abstract : The mechanism of the reaction of LiH with BF_3 ethylate is complicated. The possible courses of reaction are: $6LiH + 2BF_3 \rightarrow B_2H_6 + 6LiF$; $6LiH + 8BF_3 \rightarrow B_2H_6 + 6LiBF_4$; $4LiH + BF_3 \rightarrow LiBH_4 + 3LiF$; $BF_3 + LiF = LiBF_4$; $BF_3 + 3LiBH_4 = B_2H_6 + 3LiF$ and others. B_2H_6 (in the gaseous phase) $LiBH_4$ and $LiBF_4$ (in the solid remainder after distilling ether off) are formed as final boron containing substances. The yield of B_2H_6 is influenced by the temperature, interrelation and order of adding the reagents and the intensity of stirring. The best results are obtained at 25 to 30° at the initial reaction stage, gradu-

Card 1/2 -2-

ally adding $BF_3(C_2H_5)_2O$ to LiH suspended in absolute ether and stirring continuously. The initial relation BF_3 : LiH must be within the limits of 1 : 2.4 to 1 : 2.8. Under such conditions the yield of B_2H_6 attains 83.4% of BF_3 and 94.6% of LiH; the reaction proceeds in 2 stages: at the beginning, B_2H_6 is slowly separating and the intermediate active products accumulate; in the second stage, new additions of ethylate interact with the remaining LiH and the intermediate active products, $LiBH_4$ being among them, and the major part of B_2H_6 is produced. The mechanism of the reaction is step-by-step in both stages and intermediate compounds $LiHBF_3$, $LiBH_2F_2$ and $LiBH_3F$ are produced. The produced B_2H_6 appears practically as an individual substance, the melting point of which is -165°.

FEDNEVA, YE. M.

78-3-16/35

AUTHORS: Mikheyeva, V. I. and Fedneva, Ye. M.

TITLE: Complex Compounds of Boron Hydrides with Nitrogen-Containing Organic Bases. (Kompleksnyye soyedineniya borovodorodov s azotsoderzhashchimi organicheskimi osnovaniyami.) II. Compounds of diborane with aniline and dimethylaniline. (Soyedineniya diborana s anilinom i dimetilanilinom.)

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1957, Vol.II, Nr.3, pp. 604-605. (USSR)

ABSTRACT: In this report, which was presented at the VII All-Union conference on the chemistry of complex compounds on October 11, 1956, the reaction of gaseous diborane with aniline and dimethylaniline cooled to 0°C is described. The compounds obtained were: with aniline $(C_6H_5)_2N_2H_2BH$, for which the structure $(C_6H_5NH)_2BH$ is proposed; with N,N-dimethylaniline, $C_6H_5N(CH_3)_2.BH_3$. There is 1 figure and 4 references, 2 of which are Slavic.

SUBMITTED: November 22, 1956.

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78-3-16/35

Complex Compounds of Boron Hydrides with Nitrogen-Containing Organic Bases. II.

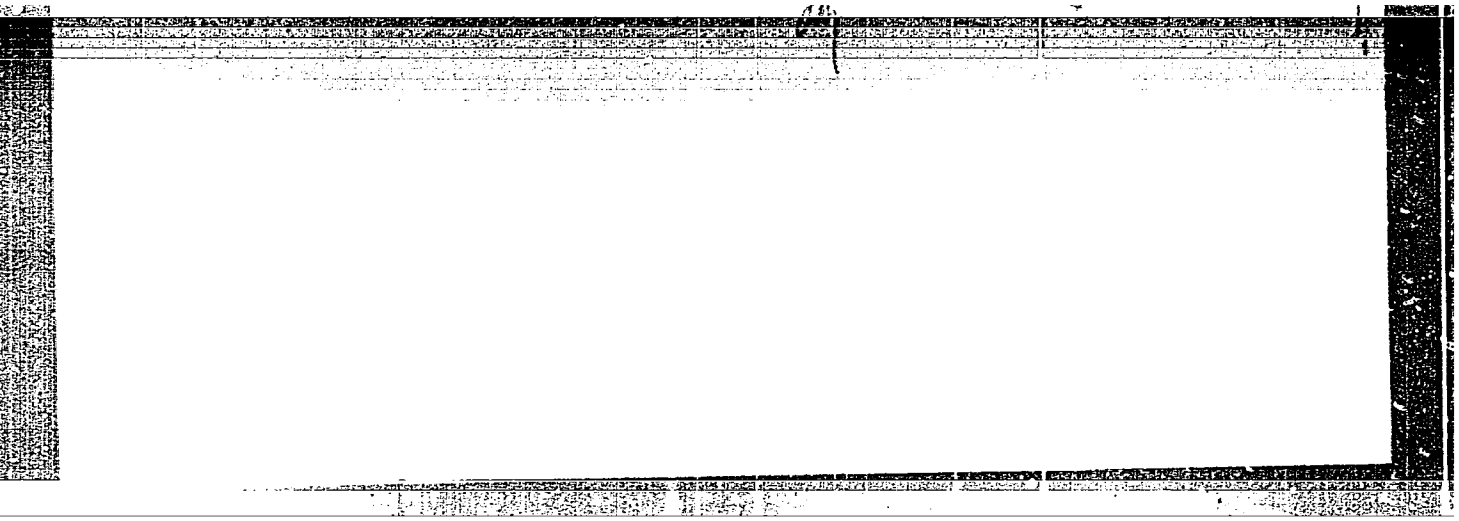
AVAILABLE: Library of Congress.

Card 2/2

FEDNEVA, YE. M.

Distr: 4E2c(j)/4E9d

Reaction of arylazocarboxylic salts with ... chlorovinylmercuric chlorides. O. A. Reutov and E. M. Fedneva (State Univ., Moscow). Zhur. Obshchei Khim. 27, 3106-8(1957). - Reaction of 35.7 g. ... Cl with 29.5 g. PhN_2CO_2K in dry Me_2CO rapidly yields a ppt. of KCl, $KHCO_3$ and Hg and forms 19.5% PhHgCl and 12% *trans*-PhCH:CHCl. *cis*-ClHCl.CHHgCl similarly gives 12% *PhCH:CHCl*, b_{12} 60-4°, n_D^{20} 1.5763, d_{20} 1.182, which is probably the *cis* isomer. Reaction of *trans*-ClCH:CHHgCl with p-$MeC_6H_4CO_2K$ similarly gave 12% p-$MeC_6H_4CH:CHCl$, b_{14} 99-101°, n_D^{20} 1.5606. G. M. K.



APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000412610006-1"

SOV/78-3-10-1/35

AUTHORS: Mikheyeva, V. I., Mal'tseva, N. N., Fedneva, Ye. M.

TITLE: On the Reducing Power of Diborane and Some of Its Derivatives (O vosstanovitel'noy sposobnosti diborana i nekotorykh yego proizvodnykh)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1958, Vol 3, Nr 10, pp 2225-2230 (USSR)

ABSTRACT: The conditions of quantitative oxidation of diborane and some of the derivatives which it forms together with potassium iodate, potassium permanganate and silver nitrate are determined in the present paper. The oxidation of lithium boron hydride, sodium boron hydride and potassium boron hydride with potassium iodate and silver sulfate was carried out in the aqueous medium. The oxidations show the following scheme:

$$3\ BH^-_4 + 4\ JO^-_3 = 4\ J^- + 3\ H_2BO^-_3 + 3\ H_2O \qquad (1)$$

$$8\ Ag^+ + BH^-_4 + 8\ OH^- \xrightarrow{C_2H_4(NH_2)_2} 8\ Ag + H_2BO^-_3 + 5\ H_2O \qquad (2)$$

Card 1/2 The hydride hydrogen was determined by argentometric and gaso-

On t: Reducing Power of Diborane and Some of Its Derivatives

metric methods.
Interaction between pyridine borine and water was not detected when cooled down to 0°C. An insignificant decomposition at room temperature, accompanied by loss of hydrogen, and a perceptible hydrolysis at 100°C were detected. The stability of pyridine borine against alkali lyes goes so far that it remains stable in solutions of 0,5 - 1 n NaOH for 20 hours. Pyridine borine reacts upon potassium iodide practically within a moment. The reaction of diborane upon potassium iodate and potassium permanganate was analyzed. The titration curve of potassium boron hydride with silver nitrate was taken. It was confirmed by the example presented by pyridine borine that the method of iodination can be applied in the determination of active hydrogen in complex compounds of diborane with organic amines. The reaction of silver sulfate and potassium permanganate upon pyridine complexes of diborane in the weakly alkaline medium is unsuitable for quantitative determinations. There are 4 figures, 6 tables, and 15 references, 3 of which are Soviet.

SUBMITTED: May 5, 1958

Card 2/2

FEDNEVA, Ye. M.: Master Chem Sci (diss) -- "Obtaining diborane by reacting lithium hydride with the diethyletherate of boron trifluoride, and a study of certain compounds of diborane with the amines". Moscow, 1959. 16 pp (Acad Sci USSR, Inst of Gen and Inorganic Chem im N. S. Kurnakov), 150 copies (KL, No 13, 1959, 101)

SOV/78-4-2-7/40

5(2)
AUTHOR: Fedneva, Ye. M.

TITLE: The Temperature Effect on the Reaction of Lithium Hydride With the Etherate of Boron Trifluoride (Vliyaniye temperatury na reaktsiyu gidrida litiya s efiratom trekhftoristogo bora)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 2, pp 286-288 (USSR)

ABSTRACT: The reaction of lithium hydride with BF_3-etherate in ether at temperatures from -5 to +34° was investigated. For the complete consumption of BF_3-etherate an excess of lithium hydride was used. The reaction process is as follows:

$$6LiH + 2BF_3 \cdot (C_2H_5)_2O \rightarrow B_2H_6 + 6LiF + 2(C_2H_5)_2O \quad (1)$$

The results are summed up in table 1. The optimum temperature for the production of diborane is between 10° and 25°. At 34°, lithium boron fluoride is formed and the formation of diborane and, above all, of lithium boron hydride decreases. Large quantities of $LiBF_4$ but almost no lithium boron hydride are formed in tetrahydrofuran as a solvent. The formation of

Card 1/2

The Temperature Effect... on the Reaction of Lithium Hydride With the Etherate of Boron Trifluoride

lithium boron hydride proceeds according to the following equation:

$$2LiH + (BH_3)_2 = 2LiBH_4 \quad (2)$$

The preparation of lithium boron hydride by the reaction of lithium hydride with BF_3-etherate in ether is described. In some cases, lithium hydride was separated in the form of dioxanate. Lithium boron hydride dioxanate is stable in air which considerably favors the working conditions of the production of lithium boron hydride. It was found that for lithium boron hydride dioxanate $H_{active} = 3.67\%$. By the method worked out lithium boron hydride can be prepared with yields up to 46%. There are 1 figure, 1 table, and 6 references, 2 of which are Soviet.

SUBMITTED: November 22, 1957

Card 2/2

SOV/78-4-2-8/40

5(4)

AUTHORS: Fedneva, Ye. M., Mal'tseva, N. N.

TITLE: The Activation of the Reaction of Lithium Hydride With the Etherate of Boron Trifluoride (Aktivirovaniye reaktsii gidrida litiya s efiratom trekhftoristogo bora)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 2, pp 289-293 (USSR)

ABSTRACT: A simple method of activating the reaction between lithium hydride and the etherate of boron trifluoride by halogens (iodine and bromine) has been worked out. By this method diborane can be prepared without an induction period. The technique of the addition of the activators iodine and bromine is described. Iodine and bromine accelerate the velocity of the formation reaction of diborane by the 2.5-3 fold. The reaction between lithium hydride and the etherate of boron trifluoride in ether, in the presence of the activators, proceeds according to the following equation:

$$6LiH + 2BF_3 \cdot (C_2H_5)_2O = B_2H_6 + 6LiF + 2(C_2H_5)_2O \quad (1)$$

Diborane can also be produced in the solvents benzene and

Card 1/3

The Activation of the Reaction of Lithium Hydride With the Etherate of Boron Trifluoride

toluene (xylene) if iodine and bromine are used. The results are shown in table 1, experiments 4-8. The diborane yield is smaller in toluene reactions than in benzene reactions. The diborane production in benzene, depending on the amount of lithium hydride and the temperature, was investigated at 20°, 35°, and 50°. An excess of BF_3-etherate up to 20% and a temperature of 35°C are necessary for the complete consumption of lithium hydride. It is not possible to produce diborane with calcium hydride instead of lithium hydride because even in the presence of iodine and bromine calcium hydride does not react with BF_3-etherate. The mechanism of the reaction of lithium hydride with BF_3-etherate in benzene in the presence of iodine and bromine was discussed. It is presumed that iodine reacts with lithium hydride while the oxide layer of the surface and the structure of lithium hydride are destroyed. Therefore, the reactivity of the BF_3-etherate with lithium hydride rises. The mechanism does not depend on the solvent. Roentgenograms of the products formed were taken during the

The Activation of the Reaction of Lithium Hydride With the Etherate of Boron Trifluoride

reaction in order to find further interpretations of the mechanism. There are 1 figure, 1 table, and 4 references, 2 of which are Soviet.

SUBMITTED: November 22, 1957

11.1250
5.3700 2209

S/079/60/030/009/003/015
B001/B064

AUTHOR: Fedneva, Ye. M.

TITLE: The Reducibility of Pyridine Borine

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol.30, No. 9, pp.2818-2820

TEXT: In continuation of the papers of Refs. 8-10, in the present investigation the author tried to reduce benzaldehyde and benzoyl chloride with pyridine borine. The formation of an intermediate complex $C_6H_5CHO \cdot BH_3 \cdot NC_5H_5$ was assumed in the solution with subsequent intramolecular reduction of the carbonyl group by means of boron hydride;

$$C_6H_5CHO + C_5H_5N \cdot BH_3 \longrightarrow [C_6H_5CHO \cdot BH_3 \cdot NC_5H_5] \longrightarrow [C_6H_5CH_2OBH_2] + C_5H_5N.$$

The subsequent hydrolysis of benzyl oxyborine in acid medium leads to benzyl alcohol whose yield is 90% at a molar ratio of 1 : 1 between aldehyde and pyridine borine: $[C_6H_5CH_2OBH_2] + 3H_2O \longrightarrow C_6H_5CH_2OH + H_3BO_3 + 2H_2$.

The reduction of benzoyl chloride with pyridine borine gives also rise to benzyl alcohol (96% yield at a molar ratio of 1 : 2). Thus, only one hydrogen atom is active in pyridine borine. Reaction kinetics and yield

Card 1/2

depend to a large extent on temperature. Reduction was carried out in ether- and pyridine medium. The effect exerted by the solvent also plays a role (Ref. 7). Pyridine borine has advantages over the alkali boron hydrides and the gaseous diborane (Refs. 5, 8). Other authors (Ref. 7) showed that pyridine borine may also be used for the reduction of the substituted benzaldehydes of the p-XC_6H_4CHO (X=Cl, Br, NO_2) type, as well as of benzophenone and benzoic acid. There are 10 references: 3 Soviet and 7 US.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk SSSR
(Institute of General and Inorganic Chemistry of the Academy of Sciences USSR)

SUBMITTED: October 5, 1959

5.2400(A)

68988
S/020/60/131/02/029/071
B011/B005

AUTHORS: Mikheyeva, V. I., Fedneva, Ye. M., Alpatova, V. I.

TITLE: Production of Diborane by Reducing Boron Trifluoride Etherate with Calcium Hydride

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 131, Nr 2, pp 318-320 (USSR)

ABSTRACT: The authors tried to determine the conditions ensuring the reaction mentioned in the title. The present paper is a continuation of previous investigations (Refs 3-5). At first, the said reaction was studied thermographically with N. S. Kurnakov's pyrometer. It was found that the separation of diborane practically coincides with the beginning of boiling of the BF_3 etherate (at 120°). The largest diborane quantity forms at a ratio of $CaH_2:BF_3$ = about 3:2 (see equation). Besides the thermal effect which corresponds to this reaction (masked by a superposition of the thermal effect of boiling-out of the etherate), all thermograms (Fig 1) show an endothermic effect at 250-322°. It corresponds to the decomposition of $Ca(BF_4)_2$. An exothermic effect at 300-333° is connected with the formation reaction of elementary boron (see equation). The diborane synthesis proceeds at a temperature near the boiling point of the etherate. An apparatus used for this purpose is shown by figure 2. The quanti-

Card 1/2

tative ratio of the reagents is decisive for the diborane yield (Table 1). In the case of an insufficient quantity of etherate, an exothermic reaction takes place automatically about 1-2 h after the beginning of the diborate separation; this heats the reaction mixture up to 450-500°. The mixture becomes black, and the diborane yield falls. The maximum yield is attained with an etherate excess of up to 60%. In the solid reaction products, CaF_2, $Ca(BF_4)_2$, CaH_2, and B were proved chemically and roentgenographically (according to Debye). In conclusion the authors state that the method mentioned in the title is suited for a diborane production with good yields. There are 2 figures, 1 table, and 8 references, 4 of which are Soviet.

PRESENTED: November 10, 1959, by I. I. Chernyayev, Academician

SUBMITTED: October 27, 1959

FEDNEVA, Ye.M.; ALPATOVA, V.I.; MIKHEYEVA, V.I.

Thermal stability of lithium borohydride. Zhur. neorg. khim. 9 no.6:1519-1520 Je '63 (MIRA 17:8)

ACCESSION NR: AP4009347 S/0078/64/009/001/0056/0059

AUTHORS: Fedneva, Ye. M.; Alpatova, V. I.; Mikheyeva, V. I.

TITLE: Reaction of diborane with isopropylamine and ethylenediamine.

SOURCE: Zhurnal neorganicheskoy khimii, v. 9, no. 1, 1964, 56-59

TOPIC TAGS: diborane isopropylamine reaction, diborane ethylenediamine reaction, trimethylboron ethylenediamine reaction, stability

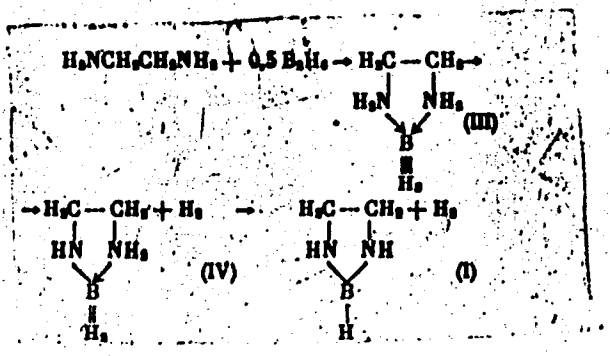
ABSTRACT: Diborane reacts at 0° with isopropylamine to form iso-$C_3H_7NH_2.BH_3$, which on standing at 20° decomposes:

$$C_3H_7NH_2 \cdot BH_3 \rightarrow C_3H_7NH - BH_2 + H_2$$

Diborane reacts with ethylenediamine to form a product $C_6H_6N_2BH$ and H_2. This colorless liquid showing reducing properties is formed if the reaction is run at 20°, 0° or -30°. The following reaction is proposed:

Card 1/3

ACCESSION NR: AP4009347

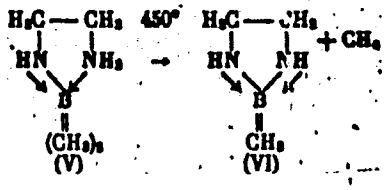


Product is so unstable that it is impossible to obtain molecular weight, reaction constants or even its spectrum. The conversion in the previous equation is believed the same as for the compound of ethylenediamine with trimethylboron: $H_2N(CH_2)_2NH.B(CH_3)_2$, H_2 bei[illegible]

Card 2/3

ACCESSION NR: AP4009347

split out instead of CH_4:



Orig. art. has: 3 Equations and 1 Table.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova Akademiya nauk SSSR (Institute of General and Inorganic Chemistry Academy of Sciences SSSR)

SUBMITTED: 08Jan63 DATE ACQ: 07Feb64 ENCL: 00

SUB CODE: CH NR REF SOV: 002 OTHER: 017

Card 3/3

ACCESSION NR: AP4039270 S/0078/64/009/006/1519/1520

AUTHOR: Fedneva, Ye. M.; Alpatova, V. I.; Mikheyeva, V. I.

TITLE: Thermal stability of lithium borohydride

SOURCE: Zhurnal neorganicheskoy khimii, v. 9, no. 6, 1964, 1519-1520

TOPIC TAGS: lithium borohydride, lithium borohydride dioxanate, thermal stability, thermal property, differential thermal analysis, boron compound

ABSTRACT: One of the important characteristics of borohydrides, which has practical significance, is their thermal stability. This question, however, has been little described in literature. This article presents the results of an investigation of lithium borohydride and its dioxanate up to 600 C. The thermal stability of lithium borohydride and its dioxanate was studied by means of a recording pyrometer with differential thermocouple. The rate of heating was 3 C per minute. This investigation of lithium borohydride has shown that there are three endothermic transformations: at 108 - 112 C, 168 - 286 C and 483 - 492 C. The effect at 268 C corresponds to the melting of lithium borohydride. At 380 C a vigorous decomposition occurs, but it has no affect upon the heating curve. The nature of

Card 1/2

ACCESSION NR: AP4039270

the transformation at 480 C is unclear. The endothermic effect at 108 - 112 C is reversible and apparently corresponds to polymorphic transformation of lithium borohydride. Since in the course of melting the decomposition of lithium borohydride is insignificant, there exists no bases to presume the intermediate formation of LiBH at 250 - 275 C. The main liberation of gas starts above 380 C. $LiBH_4 \cdot C_4H_8O_2$ loses a molecule of dioxane at 85 C with simultaneous liberation of hydrogen. Liberation of hydrogen increases above 400 C. It is concluded that lithium borohydride dioxanate is less stable than lithium borohydride. Orig. art. has: 2 figures.

ASSOCIATION: None

SUBMITTED: 08Jan63 ENCL: 00

SUB CODE: FP NO REF SOV: 002 OTHER: 005

Card 2/2

FEDNEVA, Ye.M.; KRYUKOVA, I.V.

Thermal stability of B-trichloroborazole. Zhur. neorg. khim. 10 no.9:2115-2119 S '65. (MIRA 18:10)

L 10460-66 EWT(m)/EWP(j)/EWA(h)/EWA(c) RPL WW/JW/RM

ACC NR: AP6000288 SOURCE CODE: UR/0078/65/010/009/2115/2119

60
B

AUTHOR: Fedneva, Ye. M.[44,55]; Kryukova, I. V.[44,55]

ORG: None

TITLE: Thermal stability of B-trichloroborazole[44,55]

SOURCE: Zhurnal neorganicheskoy khimii, v. 10, no. 9, 1965, 2115-2119

TOPIC TAGS: organoboron compound, thermal stability, IR spectrum, thermogram, condensation reaction, thermal decomposition

ABSTRACT: The behavior of B-trichloroborazole at various temperatures was studied thermographically by recording the differential and gravimetric curves and by means of IR spectra. It was found that a slight decomposition of the compound with the evolution of hydrogen chloride occurs even at room temperature. The process is accelerated as the temperature rises. Thus, at 20C, 1.3% of the compound decomposes in one month and 2.6% in three months, whereas at 100C 2.7% decomposes in 3 hr and at 150C 40% decomposes in 3 hr. The main reaction products are those resulting from the condensation of B-trichloroborazole. In the solvent chlorobenzene, the condensation of B-trichloroborazole is less extensive than in the solid state without the solvent. Orig. art. has: 3 figures, 1 table, and 2 formulas.

SUB CODE: 07 / SUBM DATE: 21Nov64 / ORIG REF: 011 / OTH REF: 017

HW

Card 1/1

UDC: 661.659

2

Fedochenko, V.M.

3(0) PHASE I BOOK EXPLOITATION SOV/2205

Vsesoyuznyy nauchno-issledovatel'skiy institut fiziko-tekhnicheskikh i radiotekhnicheskikh izmereniy

Izmereniye vremeni; sbornik (Measurement of Time; Collection of Articles) Moscow, Standartgiz, 1958. 115 p. (Series: Its: Trudy, /vyp./ 1) Errata slip inserted. 2,000 copies printed.

Additional Sponsoring Agency: USSR. Komitet standartov, mer i izmeritel'nykh priborov.

Resp. Ed. of this vol: A.I. Konstantinov; Editorial Board: G.D. Burdun, A.L. Dukler, V.I. Yermakov (Deputy Chairman), M.K. Zhokhovskiy, L.M. Zaks, A.I. Konstantinov, V.F. Lubentsov (Chairman), M.P. Orlova, L.M. Pyatigorskiy, I.G. Rusakov, N.A. Sorokin (Resp. Secretary), V.N. Titov; Ed. of Publishing House: S.M. Davydova; Tech. Ed.: M.A. Kondrat'yeva.

PURPOSE: This book is intended for astronomers, geodesists, and other scientific personnel interested in the precise determination of time.

COVERAGE: This is the first of a series of periodicals to be published by the

Card 1/4

Measurement of Time (Cont.) SOV/2205

All-Union Scientific Research Institute of Physical-Technical and Radio-Technical Measurements. The present volume is concerned with the measurement of time and represents some of the work of the Central Scientific Research Bureau of the Unified Time Service during the years 1947-1951. References accompany each article.

TABLE OF CONTENTS:

Card 2/4

A complete description of the design and principles of operation of photo chronoscope is given. The description is well illustrated with diagrams and photographs.

Konstantinov, A.I. and A.I. Solov'yev. Basic Determination of the Longitude of the Astronomic Station in Irkutsk During 1947-1948 72

This article describes the program used in the precise determination of the difference in longitude Moscow-Irkutsk. This work served to give the Irkutsk Time Service a precise longitude value and to establish a base for determining personal equations of astronomers.

Dolgov, P.N. The Work of the Time Service of the Soviet Union During 1948, 1949, and 1950 103

This article evaluates the results of the time services of the USSR for the years cited based on the analysis of the monthly bulletins of moments of time signals and moments of standard time.

AVAILABLE: Library of Congress (QB 213.V9)

MM/gmp
9-1-59

L 43086-66 EWP(k)/EWT(m)/EWP(e)/EWA(d)/EEC [illegible]

ACC NR: AR6014368 (A,N) SOURCE CODE: UR/0137/65/000/011/G031/G031

AUTHOR: Fedor chenko, I. M.

TITLE: Powder metallurgical materials in present day technology

SOURCE: Ref. zh. Metallurgiya, Abs. 11G221

REF SOURCE: Sb. Prooshk. metallurgiya i metalloobrabotka. Yerevan, 1965, 12-34

TOPIC TAGS: powder metallurgy, metallurgic research

ABSTRACT: Review. The technical possibilities of powder metallurgy particularly in the area of obtaining new materials and the factors determining the economic effectiveness of this method were reviewed. Examples of application of powder metallurgical materials (M) are presented: antifriction, friction alloys, filler M for gas and steam turbines, high-temperature and heat-resistant M filters, construction materials, heat elements, thermoelements, and MHD generators. A short description of the technology of manufacture of various M is given. The physico-mechanical properties as well as data showing the expediency and economics of application and use of M are given. Several future applications of M are indicated: synthesis of new M by developing precipitation-hardened alloys on

Card 1/2 UDC: 621.762

L 43086-66

ACC NR: AR6014368

the basis of Fe, CO, and high-melting metals, fiber metallurgy, manufacture of combination M fiber-powders, and application of high-melting semiconductor compounds for operation at high temperatures. V. Kvin [Translation of abstract]

SUB CODE: 11

Card 2/2 gd

L 41636-66 EWP(e)/EWT(m)/EWP(w)/T/EWP(t)/ETI/EWP(k) IJP(c) JD/WW/WH/JH

ACC NR: AP6007285 (N) SOURCE CODE: UR/0226/66/000/002/0040/0045

53
51
B

AUTHOR: Miroshnikov, V. N.; Fedorchenko, I. M.

ORG: Institute of Material Science Problems, AN UkrSSR (Institut problem materialovedeniya AN UkrSSR)

TITLE: Investigation of the production of bronzes by powder metallurgy methods

SOURCE: Poroshkovaya metallurgiya, no. 2, 1966, 40-45

TOPIC TAGS: powder metallurgy, bronze, optimization, sintered alloy, powder metal property, temperature dependence, compressive strength, metallographic examination, POWDER METAL COMPACTION, POROSITY

ABSTRACT: The problem of applying powder metallurgy methods in the production of bronzes alloyed with pure Al, Fe, Mn and Si was investigated. The Cu contents of the ternary and quarternary bronzes ranged from 87.0 to 96.0 wt %. Samples were compacted at pressures of $10\text{-}12\cdot10^9$ N/m^2 (final porosity--4 to 6%) and sintered under hydrogen at temperatures ranging from 1173-1223°K. The change in sample porosity after sintering increased linearly as a function of sample porosity after compacting. After compacting to less than 10% porosity no changes occurred upon recompacting and resintering at 1173°K for 2 hrs. Optimum process conditions were listed for different sample sizes of aluminum bronze (10% Al). The original and final chemical compositions agreed well, although slight variations were noted in individual samples as a function of

Card 1/2

ACC NR: AP6007285 2

sample height. About 2% graphite was added to each type of bronze and the resultant material was analyzed. The compressive strength increased and the porosity decreased as functions of compacting force, with little change above $7 \cdot 10^4$ N. Microstructures showed the graphite and second-phase distributions. Microhardness given as a function of distance from the surface varied from 145 to 114 dkN/mm^2; however, no functional relationship was apparent. Thus, it was established that powder metallurgy methods may be used to produce low-porosity bronzes and bronze-graphite materials with homogeneous and stable structures. Orig. art. has: 5 figures, 6 tables.

SUB CODE: 11/ SUBM DATE: 21Jun65/ ORIG REF: 001

Card 2/2 af

ACC NR: AP6011240 (N) SOURCE CODE: UR/0413/66/000/006/0077/0077

INVENTOR: Fedorchenko, I. M.; Panaioti, I. I.; Derkacheva, G. M.

ORG: none

TITLE: Sintered friction material. Class 40, No. 179932 [announced by the Institute of Powder Metallurgy and Special Alloys AN UkrSSR (Institut metallokeramiki i spetssplavov AN UkrSSR)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 6, 1966, 77

TOPIC TAGS: sintered friction material, friction material

ABSTRACT: An Author Certificate has been issued for an iron-base sintered friction material containing silica and asbestos. To increase the heat resistance of the material, the following composition (%) is suggested: aluminum, 7—9; silica, 1—3; asbestos, 1—3; phosphorus, 0.7—1; manganese, silicon, nickel, chromium, sulfur, etc., up to 2; iron, the remainder. [Translation] [LD]

SUB CODE: 11, 20/ SUBM DATE: 04Dec63/

Card 1/1 UDC: 669.15' 715-192' :621.762

DEKHTYAR, I.Ya.; MIKHALENKOV, V.S.; FEDOCHENKO, R.G.

Evaluating the interatomic interation in iron-chromium alloys at high temperature. Sbor. nauch. rab. Inst. metallofiz. AN URSR no.15: 117-122 '62. (MIRA 15:12)

(Iron-chromium alloys--Thermal properties) (Crystal lattices)

14(7) SOV/99-59-3-6/10

AUTHOR: Fedodeyev, I.F., Head of Construction, Meritorious Irrigation Specialist of the Uzbek SSR

TITLE: The Kokand Hydraulic Center (Kokandskiy gidrouzel)

PERIODICAL: Gidrotekhnika i melioratsiya, 1959, Nr 3, pp 36-37 (USSR)

ABSTRACT: In November 1958, the construction of the Kokand Hydraulic Center consisting of 76 hydraulic structures, canals, and dams was terminated. The project, calling for the irrigation of some 170,000 hectares, is located on the Sokh river, Fergana oblast', Uzbek SSR. The following volume of work has been achieved: earth moved - 870,000 m^3, concrete laid for filling - 31,600 m^3, concrete and reinforced concrete laid -

Card 1/2

The Kokand Hydraulic Center

SOV/99-59-3-6/10

17,000 m^3, and stones deposited - 17,700 m^3. The construction costs were 12,000,000 rubles. There is 1 photo.

ASSOCIATION: Kokandskiy gidrouzel (Kokand Hydraulic Center)

Card 2/2

ORLOV, V., mayor; FEDONIN, A., starshiy leytenant

Forming a part of the second echelon. Starsh.-serzh. no.9:10 S '61.
(MIRA 15:2)

(Attack and defense(Military science))

S/057/62/032/001/015/018
B104/B138

AUTHORS: Gershteyn, G. M., and Fedonin, G. K.

TITLE: Simulator for studying two-dimensional fields with a vibrating charged probe

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 1, 1962, 112-118

TEXT: A laboratory device for simulating two-dimensional fields obeying Laplace's equation was developed by applying earlier findings (Izv. Vuzov. Radiofiziki, 2, no. 4, 602, 1959; ZhTF, XXX, 6, 734, 1960). The charged probe 3 is made from a good dielectric. Probe holder А is caused to vibrate by vibrator Б, which is fed by a l-f generator Г, and is connected to a device К which allows the probe to be moved in Cartesian or polar coordinates. The vibrating charged probe produces current in the circuit formed by M and R. The voltage drop at R is measured by the indicator И, which consists of a l-f amplifier and a cathodic voltmeter. Thin rods of circular or square cross section were used as probes. Frequency and amplitude of the probe vibrations are carefully selected so as to achieved purely linear probe vibration. The three models of

Card 1/3

Simulator for studying two- ...

capacitors presented in Fig. 3 were used. The electrodes were 30-50-mm high and were made of copper sheet on a textolite base. A 28ИМ(28IM) reference amplifier was used for amplifying the induced voltage. Measurement and calculation of the potential from A. M. Strashkevich's formula (Elektronnaya optika elektrostaticheskikh poley, ne obladayushchikh osevoy simmetriey. Fizmatgiz, 1959), were consistent with each other with an error of 2%. The error in measurements can be reduced by using a compensation method. There are 7 figures and 6 Soviet references.

ASSOCIATION: Saratovskiy gosudarstvennyy universitet, Kafedra radiofiziki (Saratov State University, Department of Radiophysics)

SUBMITTED: March 25, 1961

Fig. 1. Diagram of simulator

Fig. 3. Capacitor models

Simulator for studying two- ...

S/057/62/032/001/015/018
B104/B138

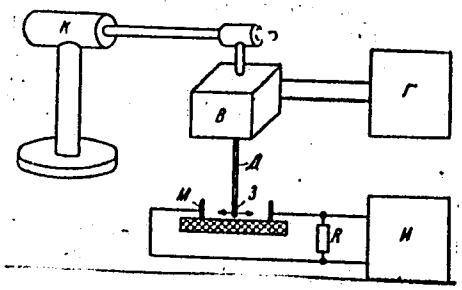


Fig. 1

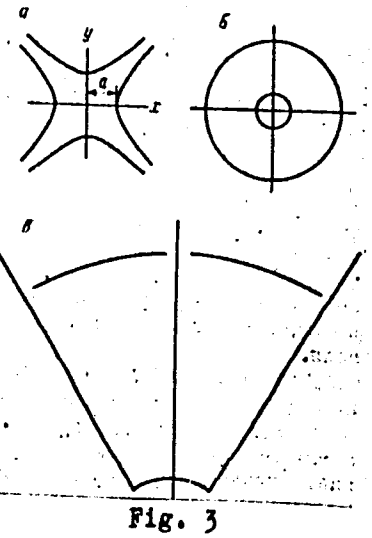


Fig. 3

Card 3/3

L 02290-67 EWT(d) IJP(c)

ACC NR: AR6016556 SOURCE CODE: UR/0196/65/000/012/A009/A009

AUTHOR: Gershteyn, G. M.; Sedin, V. A.; Pronin, V. P.; Fedonin, G. K.; Khokhlov, A. V. 67 B

TITLE: MNT-V3 installation for simulating three-dimensional fields by the induced current method 26

SOURCE: Ref. zh. Elektrotekhnika i energetika, Abs. 12A61

REF SOURCE: Sb. Vopr. elektrich. modelirovaniya poley. Saratov, Saratovsk. un-t, 1964, 56-71

TOPIC TAGS: induced current, electric analog, electronic simulation, electric field, gravitation field, magnetic field, Laplace equation

ABSTRACT: The authors describe the MNT-V3 specialized modelling device 10 based on the use of the induced current method. The installation is designed for simulating three-dimensional fields 10 described by the Laplace equation 10 for the case of boundary conditions of the first kind. The device may be used simulating the spatial fields of electrotechnical and electron-optical systems, the quasistatic fields of individual cells of decelerating systems in SHF instruments, the quasistatic fields of nonhomogenieties in waveguides and fields of the edge effect in various devices.

UDC: 537.212:621.3.001.57

Card 1/2

L 02290-67

ACC NR: AR6016556

The error for measurement of field strength components is 1-2% and the error for field potential measurement is 2-5%. 8 illustrations, bibliography of 11 titles. From the summary. [Translation of abstract]

SUB CODE: 09

Card 2/2

FEDCNIN, V.F.; TOLIKINA, N.F.; BELYATSKAYA, O.N.; GUL', V.Ye.

Composition of impurities in straight-chain paraffinic hydrocarbons having analytical application. Zhur. anal. khim. 20 no.9: 1022-1024 '65. (MIRA 18:9)

1. Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti.

L 08127-67 EWT(1) IJP(c) AT

ACC NR: AP6033835 SOURCE CODE: UR/0139/66/000/005/0028/0032

45
B

AUTHOR: Kovtonyuk, N. F.; Fedonin, V. F.

ORG: Moscow Technological Institute of the Meat and Milk Industry (Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti)

TITLE: On the theory of the photo emf in semiconductors with sawtooth surfaces

SOURCE: IVUZ. Fizika, no. 5, 1966, 28-32

TOPIC TAGS: photo emf, photoelectric effect, semiconducting film

ABSTRACT: The possibility of utilizing the Dember effect to produce voltages of up to tens and hundreds of volts from small semiconductor films is theoretically investigated. In order to obtain a photodiffusion gradient of excess carriers, the authors assume that a semiconductor has been deposited on a substrate in such a way that it forms a sawtooth surface. It is further assumed that the depth of light penetration is equal to the linear dimensions of the elements of the "saw," and that the velocities of surface and volume recombination have certain determined values. The calculations show that under such conditions, and at T = 300K, the electromotive force of each element may have the value of kT/q = 0.025 v. Due to the connection in series of all elements, a very high voltage can be obtained at the two ends of the sample. The authors state that a similar mechanism is responsible for the larger-than-gap voltages which can be observed in certain materials. Orig. art. has: 15 formulas and 1 figure.

SUB CODE: 20/ SUBM DATE: 26Jan65/ ORIG REF: 003/ ATD PRESS: 5102

Card 1/1 nst

RUDNAYA, A.I., kand.tekhn.nauk; FEDONYUK, I.I.

Suction-type pyrometer for measuring gas temperatures up to 1700°. Avtom.i prib. no.1:70-71 Ja-Mr '62. (MIRA 15:3)

1. Institut avtomatiki Gosplana USSR.
(Pyrometers)

FEDONYUK, P.M. (Leningrad)

Methodology of bladder catheterization in dogs. Pat. fiziol. i eksp. terap. 7 no.4:68-69 Jl-Ag '63. (MIRA 17:9)

1. Iz kafedry termicheskikh porazheniy (nachal'nik- prof. T.Ya. Ar'yev) i nauchno-issledovatel'skoy laboratorii termicheskikh porazheniy (nachal'nik- doktor med. nauk Ye.V. Gubler) Voyenno-meditsinskoy ordena Lenina akademii imeni Kirova.

FEDONYUK, P.M. (Leningrad, Vereyskaya ul. 30, kv. 49)

Use of urea in the treatment of disorders of renal excretory activity in burns. Vest. khir. 92 no.5:37-43 My '64.

(MIRA 18:1)

1. Iz kafedry termicheskikh porazheniy (nachal'nik - prof. T.Ya. Ar'yev) i nauchno-issledovatel'skoy laboratorii termicheskikh porazheniy (nachal'nik - doktor med. nauk Ye.V. Gubler) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova.

FEDOR, E.

Pediatric evaluation of nurseries and children's homes. Pediat. listy 6 no.1:57-58 Jan-Feb 51. (CLML 20:7)

1. Bratislava.

TRUCHLIK, S.; KOVAC, J.; PASTOREK, I.; FEDOR, E.

Some results of the study on the thermostability of O, O-dialkyl dithiophosphoric acids. Chem prum 14 no.5:2[illegible]262 My '64.

1. Research Institute of Agricultural Chemistry Technology, Bratislava.

FEDOR, Endre, dr.; JAVOR, Tibor, dr.

On the relationship between gastric secretion and tumors. Magy Sebesz. 15 no.1:7-10 F '62.

1. A debreceni Orvostudomanyi Egyetem II Sebeszeti Klinikajanak (igazgato: Ladanyi Jozsa dr. egyetemi tanar) es II Belgyogyaszati Klinikajanak (igazgato: Petranyi Gyula dr. egyetemi tanar) kozlemenye.

(GASTRIC JUICE) (STOMACH NEOPLASMS physiol)

PONGRACZ, Endre, dr.; SZUCS, Janos, dr.; FEDOR, Endre, dr.

Treatment of rhinophyma with half-thick free skin transplantation.
Orv. hetil. 103 no.32:1512-1513 12 Ag '62.

1. Debreceni Orvostudomanyi Egyetem, II. Sebeszeti Klinika.
(ROSACEA surg) (SKIN TRANSPLANTATION)

HUNGARY

FEDOR, Endre, Dr, PONGRACZ, Endre, Dr, SZUCS, Janos, Dr; Medical University of Debrecen, II. Surgical Clinic (Debreceni Orvostudomanyi Egyetem, II. Sebeszeti Klinika).

"Extensive Loss of the Skin of the External Male Genitalia due to Chemical Injury, Replaced by Skin of Medium Thickness."

Budapest, Orvosi Hetilap, Vol 104, No 39, 29 Sep 63, pages 1855-1856.

Abstract: [Authors' Hungarian summary] Data in the literature indicate that chemical injury to the external genitalia is extremely rare. No report of this kind has been found in the Hungarian medical literature. The most suitable repair of such injuries consists of a possibly early necrectomy followed by free transplantation of skin of medium thickness. If this can not be carried out for any reason, than the lifeless skin must be removed after demarcation along with any fresh tissue, followed by skin transplantation. This procedure promises the best functional and cosmetic results. 16 Eastern European, 6 Western references.

1/1

PONGRACZ, Endre, dr.; FEDOR, Endre, dr. SZUCS, Janos, dr.

Transplantation of half-thickness skin grafts following the excision of carbuncesl. Orv. hetil. 105 no.21:984-985 24 My'64

1. Debreceni Orvostudomanyi Egyetem, II. Sebeszeti Klinika.

Surgery

HUNGARY

PONGRACZ, Endre, Dr, SZUCS, Janos, Dr, FEDOR, Endre, Dr, Medical University of Debrecen, II. Surgical Clinic (director: LADANYI, Jozsa, Dr) (Debreceni Orvostudomanyi Egyetem, II. Sebeszeti Klinika).

"Up-to-Date Treatment of Extensive, Flayed Injuries of the Skin."

Budapest, Orvosi Hetilap, Vol 107, No 40, 2 Oct 66, pages 1904-1906.

Abstract: [Authors' Hungarian summary] In the case of extensive, flayed injury to the skin, the skin generally can not be reattached to the extremities since, because of the blood supply conditions of skin, it is incapable of surviving and will sooner or later die off. The most promising procedure is an immediate, free grafting of a half-thickness of skin. The flayed skin to be removed is suitable in every respect for the preparation of the half-thick skin. 2 Eastern European, 2 Western references.

FEDOR, M.

"Laminated transmission belts."

p. 53 (Industria Usoara) Vol. 4, no. 2, Feb. 1957
Bucharest, Rumania

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4, April 1958

FEDOR, M.

"Modernization of the shoe-uppers fabricating divisions in the footwear industry."

p. 103 (Industria Usoara) Vol. 4, no. 3, Mar. 1957
Bucharest, Rumania

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4, April 1958

FEDOR, M., ing.

Graphoanalytic method for helping technical normalization.
Industria usoara 3 no.6:222-225 Je '56.

FEDOR, M.R., ing.

Modern methods for conditioning and drying in footwear industry.
Industria usoara 3 no.1:7-10 Ja '56.

FEDOR, M.R., ing.

Some theoretical considerations on the use of conveyors in footwear industry. Industria usoara 3 no.3:99-102 Mr '56.

FEDOR, M. K.

COUNTRY : RUMANIA H
CATEGORY : Chemical Technology. Chemical Products and Their Applications. Synthetic Polymers. *
ABS. JOUR. : RZKhim., No. 19, 1959, No. 69705

AUTHOR : Fedor, M.R.
:
TITLE : Vacuum Forming of Sheet Thermoplastics

ORIG. PUB. : Ind. usoara, 1958, 5, No 10, 387-390

ABSTRACT : Described is the method of forming plastics under vacuum and presented is its technological evaluation as applied to the manufacture of stiff polyvinylchloride plastic sheets.
-- L. Pesin.

*Plastics.

CARD: 1/1

FEDOR, P.; HORKOVIC-KOVAC, G.

Childhood schizophrenia and the problem of autism in childhood.
Cesk. psychiat. 60 no.5:311-317 O '64.

1. Psychiatricka katedra SUDL, Bratislava; Psychiatricka klinika Lekarskej fakulty University Komenskeho, Bratislava.

CZECHOSLOVAKIA

FEDOR, P.; RUDOLF, A.; Department of Psychiatry, Institute for Postgraduate Medical Training, Faculty of General Medicine (Psych. Katedra UDVLF), Bratislava.

"Phenelzin in Pedopsychiatry."

Prague, Activitas Nervosa Superior, Vol 8, No 4, Nov 66, pp 464 - 465

Abstract: The drug , distributed under the trade name of Nardil, was tested on 9 children aged 7 to 15. 2 were schizophrenics, and Nardil made it possible to gain access to the patients, and develop the symptomatology, so that proper therapy could begin. 2 patients suffered from hysteria; Nardil broke their negativistic attitude, and both started cooperating in their individual psychotherapy. Nardil was used successfully in the treatment of mutism in patients with an intact intellect. After 3 - 5 days in all the 4 patients treated logorrhea occurred. After the dose of Nardil was reduced, verbal communications were stabilized at a normal level. At maximum doses of Nardil, which are required to change the clinical aspect, EEG showed slow delta activity. No references. Submitted at the 8th Annual Psychopharmacological Meeting at Je-

Abstract [Authors' German summary, modified]: The term "unrestraint" is used to decribe various forms of disturbances in the behavior of children. The term is used in correctly to designate phenomena which, because of their participation in the pathogenesis and pathodynamics of clinically and socially important changes of behavior, should be more differentiated. On the basis of 229 clinical cases an attempt is made for the classification of specific forms of unrestraint. Thirty-three references, including 2 Slovak and 2 Czech.

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